EXECUTIVE SUMMARY

This report presents encouraging evidence that integrated treatment reduces substance abuse, criminal behavior and associated costs, while improving mental health for individuals with both a serious mental illness and a serious co-occurring substance abuse disorder. However, the report also indicates that even with the availability of integrated treatment, it remains difficult to serve this population. Findings include the following:

- There were statistically significant improvements in psychiatric functioning and a statistically significant decrease in substance abuse at all four projects.
- Engaging clients in treatment was difficult and attrition was substantial in all four projects. Outcome data are not available for clients who left the program.
- Relapse happens even when clients are receiving integrated treatment.
- There were statistically significant improvements on many objective measures of quality of life, e.g. money for food and clothing.
- There was limited improvement in clients' perceptions about their quality of life.
- Criminal justice costs decreased at all four projects.
- Victimization is high for clients with co-occurring disorders. Clients at all projects reported relatively high incidences of both violent and property crime victimization.
- Many of the clients had multiple disabilities, all were poor and many had been homeless and had not been receiving necessary mental health, substance abuse, dental and other health services. Access to these services increased dramatically for clients in these programs and, consequently, the cost of these services increased.
- All four projects reported that housing is a critical need for clients with co-occurring disorders. Without housing, it is difficult to stabilize a client's mental health and develop a substance abuse treatment plan.
- Projects experienced difficulty in integrating mental health and substance abuse services, with all projects reporting staff resistance to providing integrated treatment.

I. Overview

Introduction

This report presents encouraging evidence that integrated treatment reduces substance abuse, criminal behavior and associated costs, while improving mental health for individuals with both a serious mental illness and a serious co-occurring substance abuse disorder. Using client health care cost data, as well as client arrest and conviction records, this study illustrates how the utilization of integrated mental health and substance abuse treatment results in cost avoidance. These findings come from a recently completed study of four demonstration projects jointly funded by the California Department of Mental Health (DMH) and the California Department of Alcohol and Drug Programs (ADP).

Treatment for individuals with co-occurring disorders traditionally is provided in separate programs with little or no interaction or coordination (Ries, 1993; Schmidt, 1991). These two systems emphasize different and often opposing treatment approaches. The two approaches differ in treatment philosophy, the use of medications, and the qualifications of staff.

While there is diversity in treatment approaches in both systems, traditionally, mental health treatment emphasizes a supportive approach to the client, the importance of medication, and the use of clinically trained staff with college degrees and professional licenses. On the substance abuse side, there is emphasis on harm reduction and abstinence from any drugs, peer self-help groups, and a combination of professional staff and those staff with little formal training but with personal experience with substance abuse. Mental health programs often refuse to treat substance abusing clients until they are "clean" (i.e., free of substance abuse), while some substance abuse programs might encourage mental health clients to discontinue using their medications.

The traditional separate treatment approach almost guaranteed relapse for most clients with both a serious mental illness and serious substance abuse disorder (Drake, Bartels, Teague, Noordsy, & Clark, 1993). The sheer number of failures resulting from the separate treatment approach prompted a search for a better method for treating clients with co-occurring disorders.

In the late twentieth century, the idea of integrating mental health and substance abuse treatment into one treatment program was proposed and tested (Drake et al., 1993; Drake, Teague, & Warren, 1990; Ries, 1993). As information became available, treatment providers in California began to consider ways to provide integrated treatment. The State of California sought to facilitate progress toward this goal by funding four demonstration projects. This report summarizes the outcomes from those four projects, including client outcomes, cost avoidance impact, and barriers to integration that were encountered by the demonstration projects. The

outcomes are mostly positive, and the results provide guidance to programs that seek to serve clients with co-occurring disorders.

Dual diagnosis was defined for the purposes of these projects as referring to persons with a serious mental health disorder who also had a diagnosed substance abuse disorder as defined in version four of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV).

Background

In 1995 the Governor of California directed the DMH and the ADP to work together to develop integrated services for adults with serious mental illness who also have an "untreated" substance abuse problem.

In response, the two departments organized the Dual Diagnosis Task Force (DDTF) in May 1995. The DDTF is composed of representatives from the County Alcohol and Drug Program Administrators Association of California, from the California Mental Health Directors Association, from consumers, from family members, and key personnel from the two state departments. The DDTF set out to support the development of, and promote access to, effective programs for clients with co-occurring disorders, as well as to foster cooperative efforts in the treatment of this group of clients at the local level.

Using new federal Substance Abuse and Mental Health Services Administration funds, the two departments jointly funded four demonstration projects designed to provide integrated treatment and services for clients diagnosed with both a serious mental illness and a serious substance abuse problem. The DMH and ADP, in consultation with the DDTF, provided oversight of the four projects.

The 4 projects were selected from among 31 proposals submitted in response to a Request for Applications to Implement Dual Diagnosis Treatment Programs, issued in November 1996. The proposals were reviewed and the choices announced in March 1997. The four counties selected were Contra Costa, Merced, San Diego, and Santa Cruz.

The projects were originally funded for three years, starting in mid-1997, and expected to end in mid-2000. Each project received $500,000 a year for three years. One additional year of funding was provided to allow for a longer follow-up period for data collection. This additional funding allowed the projects to continue until mid-year 2001.

The projects experienced some delays in start-up, but three were accepting clients by July 1997. The fourth county, Contra Costa, started accepting clients in November 1997. The State's Request for Application process required the project counties to continue funding the co-occurring disorders projects when state funding ended in 2001; all four counties are continuing the projects.

A program evaluation was included as part of each demonstration project. These evaluations were completed by independent consultants, with oversight from the State's Project Evaluation Director for the co-occurring disorders projects. The independent consultants were hired by the individual counties, not by the State of California. Three counties independently hired the same consultant, The Center for Applied Local Research, headed by Tom Foster. The fourth project hired Dr. Richard Hough, professor at San Diego State University and co-director of the Center for Research on Child & Adolescent Mental Health Services. Each program evaluation was submitted as a final report.

This report summarizes the findings from the four evaluations. The next section will provide an overview of what we have learned from these projects. Section III provides brief descriptions of each project, while Section IV presents a brief description of the research design. The fifth section presents findings from the four projects; the sixth section discusses barriers encountered by the four projects; and the last section presents recommendations.

II. Lessons Learned

The four projects not only provided a wealth of data on client functioning and outcomes, but also provided other lessons as well. While each project had unique aspects, there were some lessons learned that were common to all projects.

1. Engaging clients in treatment was difficult. Despite specifically designed projects aimed at individuals with a serious mental illness and a co-occurring substance abuse disorder, it was difficult to engage clients in treatment. While these individuals are known to be resistant to standard treatment, it was thought that a treatment program designed specifically for individuals with co-occurring disorders would dramatically increase the likelihood of engaging them. This proved not to be the case. The San Diego project suggested that one reason for this is that a majority of their clients met the criteria for Personality Disorders, including Avoidant Personality Disorder, Borderline Personality Disorder, and Schizoid Personality Disorder. As they note in their final report, "These findings help to explain the treatment resistance of this population and why they have difficulties engaging and maintaining engagement in treatment" (Judd, Thomas, & Hough, 2001).

2. Attrition was substantial. All four projects had high attrition rates. Dropout rates ranged from one-third of the clients admitted (San Diego) to three-fourths (Merced). As noted above, high rates of personality disorders may explain some of the attrition. While high attrition rates are not unusual for outpatient substance abuse programs, there are also factors unique to each project that interact with these rates. San Diego, for example, was richly staffed and offered many different activities each day. Moreover, it was located in a central downtown area near public transit. These factors kept the attrition rate to 35%. Merced offered fewer activities each day and it was located just outside of the main downtown area, which required a bus transfer. Clients had difficulty reaching the project site. Contra Costa, despite the efforts of its very active Assertive Community Treatment Team following-up in the community with reluctant clients, still had an attrition rate that approached 65% at 12 months. The residential Santa Cruz project did not have quite the same attrition problems, but it was a residential program, thus increasing the likelihood that clients would continue to participate; plus many of its clients were court-ordered into treatment. However, Santa Cruz experienced substantial attrition once the clients moved out of the residential program.

The point is inescapable: effectively serving this population is difficult even when programs are specifically tailored to their needs.

3. There are good outcomes of treatment for clients who remain in the projects. Clients who complete at least six months do experience improvements in their mental health, decrease their substance abuse, and reduce some of the social costs associated with their diseases.

4. Costs were avoided in public expenditures. There was cost avoidance in the criminal justice area. In other areas, e.g., physical health care, there were cost avoidance, but not in all projects. This is discussed in more detail later in this report, see Section V, Findings.

5. Relapse happens. Despite treatment, clients experience relapse. These clients have two chronic relapsing conditions (Serious Mental Illness, and Substance Abuse Disorder) and they experience relapses, even when receiving integrated treatment.

6. Integrating mental health and substance abuse services is difficult. All projects reported staff resistance and even hostility, in some cases, to providing integrated treatment. Moreover, by the end of the demonstration period, each of the projects seemed to have either a mental health orientation or a substance abuse orientation.

7. Housing is a major need for this population. Three of the projects reported housing as being a critical issue for their clients. The general shortage of affordable housing in California, together with restrictions by many low-income housing programs mandating sobriety in tenants, have created a housing crisis for clients with co-occurring disorders. For example, the San Diego project found that 80% of its clients had been homeless at some point in their lives. Only rural Merced did not report housing problems.

8. Majority of clients has no criminal justice involvement. At the beginning of the projects it was assumed that clients with co-occurring disorders would be frequent consumers of criminal justice services, but this turned out not to be the case. Just one third of the clients had arrest histories at admission. However, this still seems to be higher than would be expected for the general population.

9. Victimization is high. Clients at all projects reported relatively high incidences of both violent and property crime victimization. This is not too surprising given the incapacitating nature of co-occurring disorders and the high lifetime rate of homelessness in the co-occurring disorders population.

10. Better assessment tools are needed for clients with co-occurring disorders. Staff and the evaluation team considered many of the assessment instruments useful for treatment planning but inadequate for measuring changes for individuals with co-occurring disorders. Self-report forms seemed problematic for this population, especially for measuring substance abuse patterns. Staff suggested that cognitive deficits caused by mental illness or by years of substance abuse (or both) limited many of the clients' ability to be introspective.

III. Project Descriptions

Project Descriptions

The four projects took different approaches to integration, outreach and staffing. The projects were located in different counties in different parts of the State, in rather different settings. Three were in Northern California and one was in Southern California. One was in rural, agricultural Merced County, while two were in urban settings, one in the ethnically diverse city of San Pablo in the San Francisco Bay Area, and the other in downtown San Diego. The fourth was in a predominately Hispanic small town in agricultural Santa Cruz County. Below are brief project descriptions. For more detailed descriptions see the Interim Report and the individual final project reports.

The Contra Costa Project, located in the Bay Area city of San Pablo, used an Assertive Community Treatment approach, with a team of four co-occurring disorder specialists assigned small caseloads (approximately 11 clients each). They served a total of 84 clients. The specialists spent much of their time out in the community, meeting clients at their homes, under bridges, and at public meeting areas. The specialists spent a great proportion of their time engaging reluctant clients. The project provided services on site, but also worked to link clients with existing programs in the community. This project had the advantage of very small caseloads, but it focused upon a very difficult population living in an urban area. These factors certainly affected the treatment project and its outcomes.

The Merced project was located in the rural county of Merced. Providing a single-site service in downtown Merced, the project had both substance abuse counselors and mental health workers working as treatment teams at one site. This project served a total of 224 clients. While services were provided at one site, clients had difficulty traveling to the site. Public transit options are limited in Merced; it took a fair amount of time and several bus transfers for most clients to reach the project. Eventually, the project obtained a van and driver to pick up clients in the rural areas. The rural nature of the county, its distance from large population centers and related staffing implications, its limited public transportation, and the attempt of the project to serve a large number of clients certainly affected the treatment program and the outcomes for clients.

The San Diego project was located in urban San Diego, near public transit and the University of California San Diego Hospital. This project served 126 clients. It provided a single-site service, with both mental health clinicians and substance abuse counselors working as a team. Services were provided on site. The San Diego project benefited from being associated with a large teaching hospital, using 8 psychiatric residents and 20 graduate and undergraduate students to augment project staff over the course of the project. This staffing, in combination with the central urban location, certainly had a positive impact on the treatment program and the outcomes for clients.

The Santa Cruz project was a 90-day residential treatment program (called Paloma House), located in downtown Watsonville. It served 68 clients. It had no clinical mental health staff except for the psychiatrist who monitored medications once a week. Co-occurring disorder specialists provided most of the services on site, but occasionally clients were referred out for services. After finishing the 90-day program, clients could move into a transitional program developed by the Santa Cruz project. The project had the advantage of a captive clientele with their residential program, but as clients moved out of the residential treatment facility and on to community caseloads, the data collection efforts faltered and this certainly limited the ability to analyze program impact.

Description of Treatment Models

The treatment model outlined in the Request for Application was very broad in its description. It emphasized that projects had to integrate services for persons with co-occurring disorders into a common system of care with one coordinated "Plan of Care" for the clients. Clients were to be able to access needed services for the co-occurring disorders at a single full-service program rather than being required to access two or more separate programs. This left the applicants flexibility in developing the details of their program to meet the specific needs of their clients and to work with the resources available in each site. It also resulted in some very different approaches to integration. It is important to understand the differences in order to understand the outcomes.

There were basically three different models used in the demonstration models to provide integrated treatment. While all projects claimed to be integrated, the locus of the integration varied between the three models. That is, what was integrated differed – in one case it was the program itself, in another it was the staff, and in a third, it was the system itself that was integrated. Additionally, the training and experience of the staff also varied, giving each of the projects more of a slant towards either the traditional substance abuse or mental health treatment models.

Two of the projects, Merced and San Diego, used a model where mental health and substance abuse services are provided by cross-trained staff at a single site ("home base"). In this model, the program is integrated because it contains both substance abuse counselors and mental health clinicians, all of whom are cross-trained to work together as a unified team with clients with co-occurring disorders. Moreover, services are provided at one site. This model seems to be closest to the definition used by early pioneers in integrated treatment (Drake et al., 1993; Minkoff & Kofoed, 1989).

Both San Diego and Merced had highly educated staff; most of the staff had four-year college or post-graduate degrees. Each program had a certified substance abuse counselor and clinically trained mental health staff with college degrees and professional licenses. In terms of career experience, i.e., the field in which staff members had spent most of their careers, the San Diego staff had worked primarily in the mental health field. The Merced staff were evenly split, with almost half working

primarily in the mental health field, almost half working in the substance abuse field, and one staff member working primarily with clients with co-occurring disorders. Additionally, staff in both programs participated in numerous workshops to gain knowledge about serving clients with co-occurring disorders. For more details, see the Interim Report and the Final Reports for these two projects (available upon request from DMH).

A second model, used at the Contra Costa project, integrated the characteristics of Assertive Community Treatment (ACT) model with both a social/community model and the clinical model approach to addiction treatment and recovery. ACT combines assertive outreach and direct delivery of several services by multidisciplinary teams. It is a more intensive, integrated, and outreach-oriented approach than are most other case management approaches. The locus of the integration for this model was in the staff who were specifically trained in dealing with clients with co-occurring disorders. This approach focused on the principles of integrated treatment which include non-judgmental approach, empathy, hopefulness, motivational techniques, stages of change model, etc. While staff members did provide many services on site, a fair amount of their time was spent linking clients with existing programs in the community. Not all services were provided at one site. Staff worked to make other programs more receptive to dually diagnosed clients. As one example, program staff worked very closely with substance abuse treatment programs to facilitate participation of the co-occurring disorders clients. See Interim Report for details (available on request from DMH).

More than half of the Contra Costa treatment staff had four-year college or post-graduate degrees. In terms of career experience, half of the staff (N=3) had worked primarily in co-occurring disorders treatment programs, while two had worked in the mental health field, and one had worked primarily in the substance abuse field.

The third model, used in the Santa Cruz project, integrated the concept of a supportive residential community model with a standard bio-psycho-social approach. A bio-psycho-social approach includes assessments from biological, psychological and social areas in the treatment planning. The client's co-occurring disorders are viewed as having biological, psychological and social components. The Santa Cruz project defined "integration" broadly, with a decidedly different approach to integration than the other projects. In this model, the locus of integration seems to be at the systems level rather than at the program or staff level. A careful reading of the project description in the final report suggests a model where the approach taken to "integration" is to integrate the co-occurring disorders program into the continuum of care for both mental health and substance abuse treatment systems.

In this model, the system itself is integrated, with both mental health staff and substance abuse staff cross-trained, and with traditional programs (i.e., mental health programs and substance abuse programs) modified to "adapt" to the inclusion of co-occurring disorders clients. Rather than integrating mental health and substance abuse treatment into a one-site program, Santa Cruz emphasized a system which

had 'integrated' knowledge, understanding, and training about co-occurring disorders within both systems, but where clients may, at certain points in their recovery, access traditional programs to receive mental health or substance abuse treatment services.

This is a very different definition than one where services are provided at one site. Santa Cruz emphasizes a "staged" model of recovery, suggesting that clients with co-occurring disorders will need a broad range of alcohol/drug and mental health services to match the stages of recovery and levels of acuity through which co-occurring disorders participants move. In this model, as clients' severity of symptoms decrease, they are moved into more traditional programs, where the staff are trained and aware of the issues and needs of the client. This approach has its proponents in the early reports on integrated treatment (Minkoff, 1991).

Services were not provided at one site for clients in Paloma House at the Santa Cruz project. Because there were no qualified mental health clinicians working at Paloma House, there was no one qualified to complete the data collection form, which must be completed by a clinically trained staff member. The psychiatrist who served the program was only available to handle medication issues and had insufficient contact with clients to complete one of the clinical forms. Moreover, the treatment philosophy was more typical of the type of substance abuse treatment that emphasizes a therapeutic community with a 12-Step self-help approach.

Finally, the staff were more typical of substance abuse treatment sites where a college degree is not necessarily required. Their enthusiasm and empathy helped to bridge the gap in training and experience. Also, they did extensive training in co-occurring disorder issues. (See Final Report Santa Cruz County for details.)

The substance abuse treatment perspective of the Paloma House Project resulted in fewer referrals from the mental health units. Santa Cruz worked to overcome this reluctance with cross-training and workshops involving mental health staff.

Participant Demographics

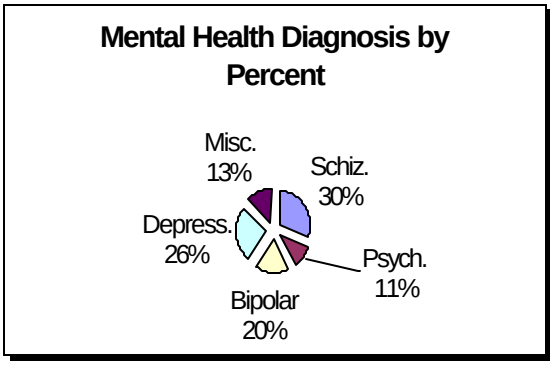
The participants ranged in age from late teens to early sixties, with most being in their late thirties. Males comprised 58% of the clients. The race/ethnicity of clients was not representative of California's overall population. As Table 1 shows (next page), Whites and African Americans were disproportionately represented in the projects and Hispanic and Asian clients were underrepresented. While the projects stressed cultural competence, enrolling Hispanics and Asians into the projects was difficult. For details see the final reports.

TABLE 1 RACE/ETHNIC COMPOSITION
THE CO-OCCURRING DISORDERS PROJECTS COMPARED WITH STATEWIDE PERCENTAGES

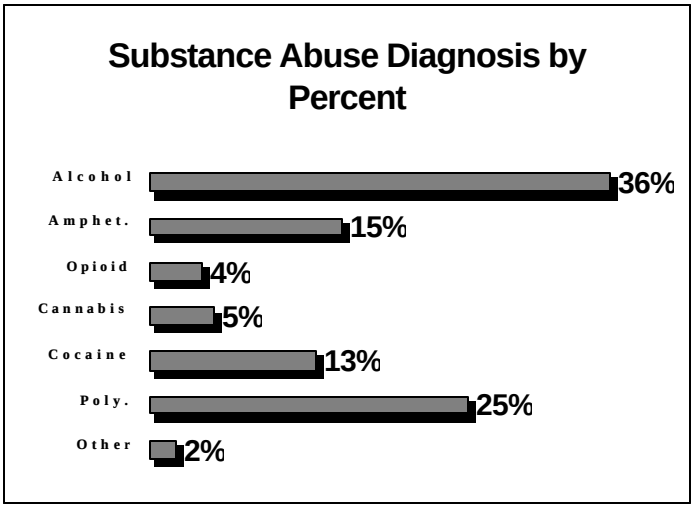
	Co-occurring Disorders Projects	State wide Pop.
White	65%	47%
Hispanic (all races)	14%	32%
Asian	2%	11%
African American	17%	6%
Native American	1%	1%
Other	1%	3%
TOTAL	100.00%	100.00%

Mental Health Diagnoses

Mood disorders were diagnosed for 46% of the clients in the four projects, with 20% having a diagnosis of bipolar disorder and 26% a diagnosis of depression. Psychotic disorders accounted for 41% of the diagnoses, with 30% being diagnosed with schizophrenia and 11% with psychosis. Miscellaneous diagnoses included anxiety disorders, Axis II diagnoses, and obsessive-compulsive disorder, among others.



The San Diego Project noted that most of its clients met the criteria for more than one diagnosis – one indicator of just how serious the problems are for this population. For research purposes, they used the most serious disorder.



Substance Abuse Disorder

Alcohol was diagnosed as a problem by over a third of the clients at admission to the projects. Polydrug use was the second most frequent diagnosis at admission, followed by amphetamines. Cannabis was a main focus of treatment for 5% of the clients, while opioids were diagnosed for 4%.

IV. Evaluation Design and Methods

Goals of Evaluation

The goal of the evaluation is to provide accurate and comprehensive data on the comparative effectiveness of integrated treatment on clinical outcomes, consumer satisfaction, client quality of life, cost, and cost savings/avoidance in the areas of physical health care and criminal justice. Specifically, the evaluation attempted to answer these questions:

- Will integrated treatment improve clients' psychiatric functioning?
- Will integrated treatment decrease substance abuse?
- Will integrated treatment improve clients' quality of life?
- Will integrated treatment decrease costs for physical health care?
- Will integrated treatment decrease criminal justice costs?
- Will integrated treatment decrease mental health treatment costs?
- Will integrated treatment decrease substance abuse treatment costs?

Evaluation Design

The evaluation design was non-experimental. The client's own history, along with testing at admission, was used as a baseline for comparison. Data were collected on each client's use of mental health services, alcohol and drug treatment services, physical health care services, and criminal justice encounters for two years prior to admission to the projects.

Repeated measures of client functioning came from a set of instruments administered in a standardized fashion to clients at admission to the programs and every six months thereafter, until the demonstration projects ended. Clients who dropped out of the project were not followed. To provide some comparability, the four projects agreed to use the same core set of instruments to assess client status and functioning (see section on Data Sources, below). These instruments provided multiple measures of such outcome variables as substance abuse, mental health status, quality of life, client satisfaction, physical health status, criminal justice involvement, and social functioning. Multiple measures are especially important when dealing with a population that has two chronic relapsing conditions. For these clients, relapses will almost certainly occur and using a single measure would obscure improvements that may have occurred in other areas of the clients' lives. Multiple measures provide a more comprehensive picture of program impact.

Additionally, all four sites agreed to use actual client encounter data for physical health care, mental health care, alcohol and drug treatment, and criminal justice involvement by the program clients. These data were collected for the baseline period, two years prior to admission to the project, and then for the duration of the project.

All data were collected through December 31, 2000. Allowing for delayed submission of data to the state-level databases, the data sets for project clients were given to the outside contractors in early summer 2001. These data, along with project data on client functioning, were analyzed by the outside contractors and presented in a final report for each of the projects. These findings and reports are the basis for this report.

Sample Selection

The target population was clients with serious mental illness and a co-occurring substance abuse problem. These conditions are defined by the criteria in the DSM-IV classification for a concurrent Axis 1 diagnosis for mental illness and for substance disorders. Any client who entered the treatment program was eligible to participate in the evaluation.

Data Sources

There were six sources of data for this project. Data sources included: clinical data from the clients; qualitative data on clients and staff; physical health care data from the Medi-Cal database; mental health service utilization data from DMH database; substance abuse treatment utilization from ADP database; and criminal justice data from the California Department of Justice. Note that there were a few clients who were excluded from the cost-analysis because they either had private health insurance or were indigent and lacked medical coverage and their actual costs could not be obtained.

Data Collection Instruments: The four projects initially agreed to use a core set of seven instruments to collect clinical data to assess client status and functioning. This was later modified to six core instruments. The seven instruments were the Addiction Severity Index (ASI), the Behavioral Health Rating of Satisfaction (BHRS), the Behavior and Symptom Identification Scale (Basis-32), the Short Form Health Status Questionnaire (SF-36), the Kennedy Axis V sub-scales (K Axis), Brief Psychiatric Rating Scale (BPRS), and Lehman's Quality of Life.

Project staff had difficulties in both finding the time and in administering the seven instruments. After some discussion, the evaluation team and outside evaluators agreed to switch to shorter versions of three of the instruments and to eliminate another. The ASI Lite was substituted for the full ASI, the SF-12 was substituted for the SF-36, and the California Quality of Life (CA-QOL), which is derived from Lehman's Quality of Life, was substituted for the Lehman's. The CA-QOL is self-administered, while staff administered the Lehman's. Using the self-administered forms saved staff time. The BPRS was eliminated since it duplicated information on psychiatric functioning provided by the K Axis. The goal was to make the data collection process less onerous for clinical staff and thus improve data collection.

For more details on the research design and methods, see the research protocol (available on diskette from DMH).

V. Findings

Just how effective were these treatment programs in achieving success in treating individuals with co-occurring disorders? The four programs had mixed results. In many areas there were resounding successes, in others, changes were more subtle or difficult to achieve. Confounding the findings is the fact that the sample decreased over time. Many clients dropped out and thus were not available when clinical data were collected at 18 months or 24 months, etc. Although clinical data (e.g., K Axis) were not available on departed clients, cost data were collected on all clients. In order to show statistically significant change with a small sample, the change has to be very large. In this section, findings are organized in terms of the specific questions the demonstration projects were to answer. For findings organized by project, see the individual reports. Information on statistical analyses is contained in the individual reports as well.

Did integrated treatment improve clients' psychiatric functioning?
Yes, in three of the projects, Contra Costa, Merced and San Diego, there were statistically significant improvements on multiple measures of psychiatric functioning. The Santa Cruz project showed improvement but on fewer indices. Since there were multiple measures of psychiatric functioning, some variation between the measures can be expected. The five subscales of the clinician-rated K Axis provided the most evidence of improvement. The subscale measuring "Psychological Impairment" showed statistically significant ($p<.05$) improvement at most points (e.g., 6 months, 12 months, etc.) in the Contra Costa, Merced, and San Diego Projects.

On the K Axis subscale measuring "Violence," there was statistically significant improvement at 6 months for Merced, at 18 months for Contra Costa, and at 30 months for the San Diego project. This scale measures such things as anger, irritability, thoughts of violence, serious thoughts of killing someone, and recent attempts at suicide or assault.

The Global Assessment of Functioning (GAF) equivalent score, a composite of the first four K Axis subscales, showed statistically significant improvement at 6, 12 and 18 months for the Merced project, and at 24 and 30 months for the San Diego project. Neither Contra Costa nor Santa Cruz showed any statistically significant improvement on this scale.

Another measure of psychological functioning is the BASIS-32. This instrument provides an "Overall Average" score, plus five individual subscale scores. On the "Overall Average," all four projects showed statistically significant improvements at various testing points (e.g., 6, 12, 18 months, etc.). Merced and San Diego had statistically significant improvements at every point, while Contra Costa and Santa Cruz had statistically significant changes at a few points.

Merced and San Diego reported statistically significant improvements on the "Impulsive/Addictive" and the "Psychosis" subscales at almost every point, while Contra Costa and Santa Cruz found statistically significant improvement at several points. On the "Depression/Anxiety" subscale, all four projects found statistically significant improvement at various points.

The SF-12 "Mental Health" scale showed statistically significant improvement at only one project, San Diego, where statistically significant improvement was found at 6, 12, 18 and 24 months.

One scale of the ASI, "Psychiatric Status," provides a measure of mental health. Statistically significant improvement was reported at various points for Contra Costa, Merced, and Santa Cruz.

Did integrated treatment decrease substance abuse?

Yes, all four projects found statistically significant improvements on the substance abuse subscale of the K Axis at various points. Merced and Santa Cruz found statistically significant improvement at every point. However, the ASI Lite, a client-completed form, was less useful in measuring change. Only Santa Cruz reported statistically significant improvement on either the "Alcohol Abuse" scale or the "Drug Abuse" scale, and that was just at one point (18 months) for the "Drug Abuse" scale. Staff at all four projects believed that the ASI was not an appropriate tool for measuring outcomes for clients with co-occurring disorders, and recent research seems to support this (Zanis, McLellan, & Corse, 1997). For example, alcohol abuse was known to be a problem for many clients (e.g., via clinical history), but in several projects, the alcohol abuse subscale showed clients starting off with no alcohol problems and then developing serious alcohol problems after treatment. The explanation offered by staff at all four projects is that clients under-report alcohol abuse at baseline, but over time, as they become more trusting of staff, they then begin to admit alcohol abuse problems. Related to this is that denial is a major issue with alcohol abuse in general and surely plays a part in the under-reporting.

Additionally, as noted earlier, data collected through client self-report is problematic for this population, especially for measuring substance abuse patterns. One possible explanation offered by project staff is that cognitive deficits caused by mental illness or by years of substance abuse or both, may limit many clients' ability to be introspective.

The BASIS-32 has a subscale, "Impulsive/Addictive Behavior," that measures substance abuse, reckless behavior, eating disorders and illegal activities. Statistically significant improvements were found at the Merced and San Diego projects at almost every point, while Contra Costa and Santa Cruz had statistically significant improvement at one point.

Did integrated treatment improve the quality of life for clients?

Answering this question is complicated. Given the non-experimental research design, we cannot accurately attribute changes to integrated treatment itself. It may be the result of chance, or just the result of the quality of services provided, or something else. Nonetheless, we can say that by many objective criteria (e.g., being placed in a stable housing environment), yes, the quality of life improved. In the areas of having enough money for food, housing and clothing, there was consistent improvement in client satisfaction at every data collection point for a majority of the projects. This is reported on the objective scales of the CA-QOL. Additionally, scores from the BASIS-32, another self-report form, show statistically significant changes in quality of life in the areas of completing activities of daily living, taking care of household responsibilities and satisfaction with life. The BASIS-32 asks specific questions about behavior, rather than feelings or perceptions. On these scales, many of the clients reported statistically significant improvement. For example, the "Daily Living Skills Scale" of BASIS-32 did document statistically significant improvements in the clients' quality of life. The San Diego project reported statistically significant improvements at every data point, from 6 months to 3 years, while the other 3 projects reported statistically significant change at just one point. The Contra Costa and Merced projects reported statistically significant change on this scale at 18 months, while Santa Cruz reported statistically significant change at 6 months.

However, as measured by subjective scales from the CA-QOL, there was limited improvement in the clients' perception of quality of life. The seven subjective subscales of the CA-QOL showed only a few instances where there were statistically significant changes. Contra Costa clients reported no statistically significant changes on any scale of the CA-QOL. The Merced project reported statistically significant improvement at 6 months for the general life satisfaction scale, while Santa Cruz found statistically significant changes at 6 months for "General Life Satisfaction," and at 18 months for the "Satisfaction with Finances" scale. For San Diego, there was more satisfaction; there was statistically significant change at 1 year for family relations and at 18 months, 2 years, 30 months and 3 years for "Satisfaction with Finances" scale. San Diego is the only project with data at 30 and 36 months. None of the other scales or time periods showed any statistically significant change.

One explanation offered by the Contra Costa project staff is that ". . . the subjective experience of persons with co-occurring disorders is such that they seldom feel that they reach socially defined levels of functioning. Once these individuals become aware of the difficulty in meeting social norms and expectations, they may experience less 'satisfaction' with their lives – even though they have made improvements clinically, socially, and financially. Program staff believe that typically, it will take three to five years for these clients to develop enough coping skills and to experience higher level of satisfaction with their lives." For more details, see The Contra Costa Final Report.

Did integrated treatment reduce costs for physical health care?
As with quality of life, answering this question is not straightforward. In three of the projects, physical health care cost actually went up. Only in the Contra Costa project did cost for physical heath care decline after admission to the project.

This increase is the result of connecting clients with services and is viewed by the projects as a positive outcome since many clients had not received badly needed health care before their admission to the projects and the projects helped them obtain the medical care they needed. The San Diego report discussed this problem and noted: "Staff were also struck by the serious and chronic health problems and lack of dental care that plagued many of our clients. . . . it was our impression that years of substance abuse, poor self-care and inadequate medical attention resulted in multiple health problems" (Judd 2001: 22). It is possible that as clients' physical health improves, the cost for physical health care will decline over time.

It should be noted that one of the difficulties in using these data to measure changes in cost is that the two time periods being compared are not equivalent. For all clients, there are 24 months of pre-admission data, but for the post-admission period, there is a varying amount of data available since some clients entered the programs less than two years before the data collection ended, thus providing less than 24 months of cost data. This artifact of the data collection means that more pre-admission costs are included than post-admission costs. Thus the analyses underestimate the cost in the post-admission period. To control for the unequal time periods, the unit of comparison is the average cost per client month. This is a calculation based on the cost of an item divided by the total number of months at risk for incurring a cost.

Also, not all health care costs are included in both periods; only costs paid by Medi-Cal are reported. Costs paid by private health insurance and by local county-funded medical services for the indigent are not included in the database. A few clients had private insurance or were indigent and their health costs were not included in the analysis.

Physical health care cost increased in Merced, San Diego, and Santa Cruz. As Table 2 shows, the average cost per client month increased by $38 in Merced, by $100 in San Diego, and by $5 in Santa Cruz. In Contra Costa, physical health care cost declined by $18 per client month.

TABLE 2 PHYSICAL HEALTH CARE COSTS

	Merced			Santa Cruz		
	Pre-admit	**Post-admit**	**Change**	**Pre-admit**	**Post-admit**	**Change**
Time at risk in months	***5266***	***4503***		***1629***	***1344***	
Emergency	$4,634	$4,555	-$79	$453	$2,248	$1,795
Cost per Client month	$1	$1	**$0**	$0	$2	**$2**
Hospitalization	$7,749	$25,271	$17,522	$112,759	$22,302	-$90,457
Cost per Client month	$1	$6	**$5**	$69	$17	**-$53**
Outpatient	$253,417	$367,852	$114,435	$142,932	$193,485	$50,553
Cost per Client month	$48	$82	**$34**	$88	$144	**$56**
TOTAL	$265,800	$397,678	$131,878	$256,144	$218,035	-$38,109
Cost per Client month	$50	$88	**$38**	$157	$162	**$5**

	Contra Costa			San Diego		
	Pre-admit	**Post-admit**	**Change**	**Pre-admit**	**Post-admit**	**Change**
Time at risk in months	***1440***	***1239***		***3024***	***3024***	
Emergency	$2,673	$1,754	-$919	$4,415	$6,782	$2,367
Cost per Client month	$2	$1	**-$1**	$1	$2	**$1**
Hospitalization	$54,999	$4,827	-$50,172	$24,226	$143,206	$118,980
Cost per Client month	$38	$4	**-$34**	$8	$47	**$39**
Outpatient	$125,672	$129,289	$3,617	$169,320	$349,868	$180,548
Cost per Client month	$87	$104	**$17**	$56	$116	**$60**
TOTAL	$183,344	$135,870	-$47,474	$197,961	$499,856	$301,895
Cost per Client month	$127	$110	**-$18**	$65	$165	**$100**

Examining the components of physical health care costs reveals where costs were avoided and where cost increased. Cost for emergency physical health care services stayed essentially the same. The cost per client month was within a dollar or two per client month, see Table 2.

There were cost savings in hospitalization costs for two of the projects. Contra Costa saved $34 per client month in hospitalization cost, while Santa Cruz saved $53 per client month. In Merced, hospitalization costs increased by $5 per client month, and in San Diego hospitalization costs increased by $39 per client month.

Outpatient physical health care costs increased for all four projects: the per client month cost increased by $17 in Contra Costa; by $34 in Merced; by $56 in Santa Cruz and by $60 in the San Diego project.

<u>Did integrated treatment decrease mental health treatment costs?</u>
No. Cost increased for all four projects. However, this is another example of clients with unmet needs for mental health treatment who received treatment after admission to the co-occurring disorders projects. Providing mental health treatment for clients with co-occurring disorders was a goal of all four projects. Presumably, over time, as the clients are stabilized, needs for the more intensive mental health treatments will decline and thus the cost will decline.

The largest increase in total mental health treatment costs was $225 per client month in Contra Costa and the smallest increase was $23 per client month in Santa Cruz. See Table 3-A and 3-B. These costs do not include the total cost of the co-occurring disorders project since the costs do not include the funding for the projects themselves (which was the same for all four projects).

When the individual components are examined, it is clear that there were shifts in some categories from more intensive services to less intensive. Most notably, there is a shift from Psychiatric Health Facilities (PHF)/Inpatient Hospitalizations to Skilled Nursing Facilities (SNF)/Institutions for Mental Health (IMD). The latter are less expensive per day than the former. Cost for PHF/Inpatient Hospitalizations decreased at three projects and essentially stayed the same at the fourth. The cost decreased by $110 per client month in Contra Costa, by $86 in Santa Cruz, and by $15 in San Diego. At Merced, the cost per client month increased by $2. See Tables 3-A and 3-B.

TABLE 3-A
MENTAL HEALTH COSTS

	Contra Costa			San Diego		
	Pre-admit	**Post-admit**	**Change**	**Pre-admit**	**Post-admit**	**Change**
Time at risk in months	**1440**	**1239**		**3024**	**3024**	
Emergency	$113,240	$113,164	-$76	$37,446	$30,225	-$7,221
Cost per Client month	$79	$91	**$13**	$12	$10	**-$2**
PHF/Inpatient	$529,629	$319,643	-$209,986	$174,787	$127,999	-$46,788
Cost per Client month	$368	$258	**-$110**	$58	$42	**-$15**
SNF/IMD	$14,205	$35,811	$21,606	$0	$43,129	$43,129
Cost per Client month	$10	$29	**$19**	$0	$14	**$14**
Residential	$286,433	$470,352	$183,919	$119,426	$109,652	-$9,774
Cost per Client month	$199	$380	**$181**	$39	$36	**-$3**
Other	$300,108	$409,459	$109,351	$332,220	$530,761	$198,541
Cost per Client month	$57	$330	**$273**	$110	$176	**$66**
TOTAL	$1,243,615	$1,348,429	$104,814	$663,879	$841,766	$177,887
Cost per Client month	$864	$1,088	**$225**	$220	$278	**$59**

Cost at SNF/IMDs increased at two of the projects, stayed essentially the same at another, and decreased at one. The cost per client month increased by $19 in Contra Costa, by $14 in San Diego, and by $2 in Merced, and decreased by $10 in Santa Cruz. As a residential treatment house, Paloma House in Santa Cruz had the advantage of having more control over clients' behavior and may have been able to intervene before a more restrictive program became necessary.

TABLE 3-B
MENTAL HEALTH COSTS

	Merced			Santa Cruz		
	Pre-admit	**Post-admit**	**Change**	**Pre-admit**	**Post-admit**	**Change**
Time at risk in months	**5266**	**4503**		**1629**	**1344**	
Emergency	$148,124	$128,961	-$19,163	$181,869	$117,730	-$64,139
Cost per Client month	$28	$29	**$1**	$112	$88	**-$24**
PHF/Inpatient	$196,619	$175,320	-$21,299	$205,168	$54,344	-$150,824
Cost per Client month	$37	$39	**$2**	$126	$40	**-$86**
SNF/IMD	$15,290	$21,474	$6,184	$41,895	$20,729	-$21,166
Cost per Client month	$3	$5	**$2**	$26	$15	**-$10**
Residential	$67,724	$40,476	-$27,248	$356,215	$314,623	-$41,592
Cost per Client month	$13	$9	**-$4**	$219	$234	**$15**
Other	$616,691	$648,117	$31,426	$1,600,892	$1,491,508	-$109,384
Cost per Client month	$117	$144	**$27**	$983	$1,110	**$127**
TOTAL	$1,044,448	$1,014,348	-$30,100	$2,386,039	$1,998,934	-$387,105
Cost per Client month	$198	$225	**$27**	$1,465	$1,487	**$23**

Emergency mental health cost decreased by $24 per client month in Santa Cruz. In two projects, Merced and San Diego, cost per client month remained essentially the same, while cost increased by $13 per client month in Contra Costa.

All four projects report increases in the category of "Other mental health costs." The cost per client month increased by $273 in Contra Costa, by $66 for San Diego, by $27 for Merced, and by $127 for Santa Cruz.

Did integrated treatment decrease criminal justice costs?

Yes, it did. Although just a third of the clients had arrest histories, their arrests were numerous and frequently serious. The total criminal justice (CJ) cost per client month went down in all projects. Santa Cruz cost per client month decreased by $570, down from $1,010 to $440 per client month. San Diego cost per client month decreased by $221, from $348 per client month to $127 per client month. Contra Costa cost per client month declined by $128, from $479 per client month to $350. Merced cost per client declined from $252 to $148 per client month, a cost avoidance of $104 per client month. See Table 4.

TABLE 4
CRIMINAL JUSTICE COSTS

	Merced			Santa Cruz		
	Pre-admit	**Post-admit**	**Change**	**Pre-admit**	**Post-admit**	**Change**
Time at risk in months	**5266**	**4503**		**1629**	**1344**	
Arrests	$242,130	$212,152	-$29,978	$156,808	$62,262	-$94,546
Cost per Client month	$46	$47	**$1**	$96	$46	**$2**
Court Cost	$541,710	$300,950	-$240,760	$818,584	$325,026	-$493,558
Cost per Client month	$103	$67	**$5**	$503	$242	**-$261**
Probation Cost	$210,600	$123,660	-$86,940	$508,680	$165,240	-$343,440
Cost per Client month	$40	$27	**-$13**	$312	$123	**-$189**
Jail Cost	$72,561	$3,705	-$68,856	$161,652	$39,045	-$122,607
Cost per Client month	$14	$1	**-$13**	$99	$29	**-$70**
Prison Cost	$259,950	$25,650	-$396,556	*	*	$0
Cost per Client month	$49	$6	-$44	0	0	**$0**
Total CJ Cost	$1,326,951	$666,117	-$660,834	$1,645,724	$591,573	-$1,054,151
Cost per Client month	$252	$148	-$104	$1,010	$440	**-$570**

*Data on prison sentences not available

	Contra Costa			San Diego		
	Pre-admit	**Post-admit**	**Change**	**Pre-admit**	**Post-admit**	**Change**
Time at risk in months	***1440***	***1239***		***3024***	***3024***	
Arrests	$115,300	$136,054	$20,754	$186,786	$110,688	-$76,098
Cost per Client month	$80	$110	**$30**	$62	$37	**-$25**
Court Cost	$264,836	$168,532	-$96,304	$361,140	$132,418	-$228,722
Cost per Client month	$184	$136	**-$48**	$119	$44	**-$76**
Probation Cost	$129,600	$87,480	-$42,120	$310,464	$126,450	-$184,014
Cost per Client month	$90	$71	**-$19**	$103	$42	**-$61**
Jail Cost	$152,133	$41,781	-$110,352	$195,054	$15,162	-$179,892
Cost per Client month	$106	$34	**-$72**	$65	$5	**-$59**
Prison Cost	$27,360	$0	-$27,360	*	*	
Cost per Client month	$19	$0	**-$19**			
Total CJ Cost	$689,229	$433,847	-$255,382	$1,053,444	$384,718	-$668,726
Cost per Client month	$479	$350	**-$128**	$348	$127	**-$221**

*San Diego Combined Jail & Prison Cost into one category 'incarceration'

When the individual categories of CJ costs are examined, costs per client month decreased in almost every category, from arrests through prison costs. Because prison and jail data were based on sentences, not on actual time served, the cost are overestimated in the after-treatment category. In the pre-treatment period, data on actual time served was available since the clients had been released. This means that costs avoided in the Jail and Prison categories are likely greater.

<u>Did integrated treatment decrease substance abuse treatment costs?</u>
No, mostly it did not. However, this is another example of clients receiving long-needed treatment after admission to the projects, which drove up the post-admission costs. Costs increased in three projects and went down in one project, see Table 5. In Contra Costa, cost per client month increased by $5, while costs per client month increased by $34 and $72 for Merced and Santa Cruz respectively. San Diego cost

per client month declined by $42. San Diego had a strong mental health perspective and perhaps this decline reflects the program's preference for mental health treatment. While cost increased, this may be viewed as a positive outcome because clients are finally receiving the services they have needed to deal with their substance abuse problems.

TABLE 5
COST DATA: CALIFORNIA ALCOHOL AND DRUG DATA SYSTEM

	Contra Costa			San Diego		
	Pre-admit	**Post-admit**	**Change**	**Pre-admit**	**Post-admit**	**Change**
Time at risk in months	**1440**	**1239**		**3024**	**3024**	
Non-Residential/Outpatient						
Day Program - Intensive	$1,151	$8,051	$6,900	$20,586	$4,890	-$15,696
Cost per Client month	$1	$6	**$6**	$7	$2	**-$5**
Outpatient - Drug free	$2,906	$5,549	$2,643	$11,756	$8,968	-$2,788
Cost per Client month	$2	$4	**$2**	$4	$3	**-$1**
Methadone Maintenance	$0	$0	$0	$658	$0	-$658
Cost per Client month	$0	$0	**$0**	$0	$0	**$0**
Methadone Detoxification	$0	$0	$0	$494	$755	$261
Cost per Client month	$0	$0	**$0**	$0	$0	**$0**
Residential						
Drug Free - Residential	$3,437	$752	-$2,685	$157,721	$49,251	-$108,470
Cost per Client month	$2	$1	**-$2**	$52	$16	**-$36**
Other	$17,159	$13,221	-$3,938	$0	$0	**$0**
Cost per Client month	$12	$11	**-$1**	$0	$0	**$0**
TOTAL	$24,653	$27,573	$2,920	$191,215	$63,864	-$127,351
Cost per Client month	$17	$22	**$5**	$63	$21	**-$42**

	Merced			Santa Cruz		
	Pre-admit	**Post-admit**	**Change**	**Pre-admit**	**Post-admit**	**Change**
Time at risk in months	***5266***	***4503***		***1626***	***1344***	
Non-Residential/Outpatient						
Day Program - Intensive	$0	$0	$0	$0	$0	$0
Cost per Client month	$0	$0	**$0**	$0	$0	**$0**
Outpatient - Drug free	$55,664	$202,168	$146,504	$0	$1,328	$1,328
Cost per Client month	$11	$45	**$34**	$0	$1	**$1**
Methadone Maintenance	$0	$0	$0	$0	$0	$0
Cost per Client month	$0	$0	**$0**	$0	$0	**$0**
Methadone Detoxification	$0	$0	$0	$305	$305	$0
Cost per Client month	$0	$0	**$0**	$0	$0	**$0**
Residential						
Drug Free - Residential	$23,360	$38,718	$15,358	$8,162	$104,822	$96,660
Cost per Client month	$4	$9	**$4**	$5	$78	**$73**
Other	$52,677	$25,037	-$27,640	$3,562	$719	**-$2,843**
Cost per Client month	$10	$6	**-$4**	$2	$1	**-$2**
TOTAL	$131,701	$265,923	$134,222	$12,029	$107,174	$95,145
Cost per Client month	$25	$59	**$34**	$7	$80	**$72**

VI. Barriers Encountered

The demonstration projects encountered barriers in their attempts to provide integrated treatment. Some of the barriers were unique to the individual projects but some were shared by several of the projects. Discussed below are barriers common to more than one project. For details on individual barriers, see each demonstration project's final reports.

1. Regulatory barriers: Three projects encountered regulatory barriers. Merced found that complying with different treatment plan standards (mental health vs. alcohol/drug) created barriers to providing services. San Diego reported similar institutional barriers. Santa Cruz experienced difficulty with various licensing requirements of different state departments. Paloma House required a higher level of licensure than ADP could provide; the California Department of Social Services licensed Paloma House so that conserved clients could be housed in the program.

2. Housing: Three projects reported that the lack of affordable and decent housing created a barrier to providing integrated treatment. It was difficult to stabilize clients when they had no place to live. Developing housing options became a priority for Contra Costa, San Diego and Santa Cruz.

3. Staffing issues: All four projects found staffing issues to be a barrier. Santa Cruz reported that finding staff with experience or training in co-occurring disorders was a barrier. San Diego noted that staffs from both the mental health and substance abuse fields need additional training and experience to deal with co-occurring disorders clients. They also noted that having sufficient staff who are well trained is expensive. The San Diego project was fortunate to be part of the University of California San Diego teaching hospital. They were able to use psychiatry residents and more than 60 trainees studying marriage and family therapy, social work, medicine, and psychology to supplement staff paid by project funds. Merced noted that the mental health needs of the co-occurring disorders population were intense and that their project needed more physician time than was available. Contra Costa noted problems with staff burnout from dealing with relapsing clients. Being optimistic and hopeful is part of the integrated treatment philosophy, but it sometimes proved elusive when staff dealt with repeated relapses. The project director at Contra Costa developed strategies to help alleviate staff burnout. For example, the project coordinator limited his time away from the project in order to be available for consultation and supervision of staff.

4. Attitudinal issues: Two of the projects reported barriers related to the attitudes of the treatment providers as well as from the community at large. San Diego noted that "Even among sophisticated treatment providers there persists a belief that co-occurring disorders represent a failure of will and represent 'weak character' " (Judd, 2001: 10). They note that mental health professionals exhibit considerable negative

attitudes toward co-occurring disorder clients who are intoxicated and exhibiting psychiatric symptoms. Santa Cruz reported similar problems with mental health staff.

5. Serving Hispanic and Asian clients: In three of the projects, Hispanic and Asian clients were underserved. Although claiming that the projects were not providing culturally competent services might be the easy answer, the view from the demonstration projects is more complex. Merced noted that 22% of their co-occurring disorder clients were Hispanic and none were Asian, while Merced County's population is 33% Hispanic and 8% Southeast Asian. Merced explained the discrepancy was due in part to the fact that a specialized program mental health program existed for Southeast Asian clients and they did not want to leave that program for the co-occurring disorders project. Also, they noted that the Hispanic culture has traditionally been resistant to accessing mental health services. Merced had Hispanic staff (including a Hispanic psychiatrist), and is committed to ongoing cultural competence, and continues to increase outreach efforts to all ethnic populations.

San Diego noted that the location of its project was in a region that had a lower proportion of Hispanic population than the rest of San Diego. The San Diego Project Director noted that Hispanic people historically do not utilize mental health services, relying more on family, church, and traditional health resources. San Diego also expressed a commitment to cultural competence training for all staff and noted that the project had biracial and bicultural staff. San Diego recommends special outreach efforts be made within the Hispanic community and churches to reduce the stigma regarding mental health services.

The Santa Cruz project was especially designed to ensure cultural sensitivity to Hispanic participants. Efforts included bilingual/bicultural staff, geographic accessibility, staff training on cultural competence, and availability of materials in Spanish. Despite this emphasis, Santa Cruz had difficulty engaging Hispanic clients: only 9% of the clients served in Santa Cruz were Hispanic. The Santa Cruz Project Manager noted that Hispanic people generally prefer to keep family members in the home, especially single females.

The Contra Costa project was located in an ethnically diverse city but in an area that is predominately African American. This project came closest to serving a representative group of clients, perhaps because of its Assertive Community Treatment approach.

VII. Summary and Recommendations

The four individual final reports present an abundance of information about the benefits and trials of implementing an integrated program for individuals with co-occurring disorders. Presented here are the recommendations suggested by more than one project, as well as recommendations from the evaluation team.

Recommendations:

1. Define integrated treatment more clearly. Several different models of integration were used in the demonstration projects. Some emphasized the "principles" of integrated treatment, while others emphasized integrating services for both disorders into one treatment program at one site. One approach may be more effective than another.

2. Define the population for which integrated treatment is needed. For example, in these four projects, the population was those clients who had a concurrent DSM-IV Axis I diagnosis for mental health disorders and for substance abuse disorders. However, some of the projects broaden that definition to include Axis II mental disorders. Axis II are personality disorders, including anti-social personality, avoidant personality, etc.

3. Establish a policy that allows for a range of goals from harm reduction to abstinence based upon the needs of clients with co-occurring disorders.

4. Mandate an integrated treatment philosophy for all clients with concurrent Axis I mental health and substance abuse disorders. Related to this is the recommendation that there be a "no wrong door" access policy for those clients with co-occurring disorders for referral and access to appropriate services.

5. Mandate fundamental cross-training on the etiology and treatment of co-occurring disorders for all public mental health and alcohol/substance abuse service providers.

6. Establish procurement of housing options for individuals with co-occurring disorders as a top priority for housing officials/coordinators.

7. Continue research to learn more about those clients with statistically significant higher costs and which of these clients have increased/decreased costs after treatment.

8. Need to develop more reliable and valid alcohol and other drug assessment instruments for clients with co-occurring disorders.

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